

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

**Listing of Claims:**

1. (Currently Amended) A transmission imager, comprising:

having a radiation source for radiating radioactive rays from its a target[[,]];  
a radiation detector[[,]]; and

a specimen table provided between the target and the radiation detector for having  
a specimen to be examined placed thereon, the radiation detector arranged with its  
detecting surface at the center extending substantially at a right angle to a reference axis  
which extends from the center to the target, characterized in that

wherein the radiation source generates X-rays, the X-rays being generated by the  
target upon receiving cathode rays emitted from a cathode, wherein a range of the X-rays  
generated is greater than an effective radiation width;

wherein the radiation detector is a combination of two, first and second, radiation  
detectors for detecting transmitted X-rays, the first radiation detector arranged with a  
detecting surface at a center of the first radiation detector extending substantially at a right  
angle to a first reference axis which extends from said center to the target, and the second  
radiation detector arranged with a detecting surface at a center of the second radiation  
detector extending substantially at a right angle to a second reference axis which extends  
from said center to the target, the first radiation detector arranged to be moved to and from  
the target by the action of a driving mechanism and thus positioned further from the target  
than the second radiation detector, and

wherein the radiation source is specifically arranged in relation to the two, first and  
second, radiation detectors so that its target comes at an angle to face a cathode which is  
disposed closer to the second radiation detector.

2. (Currently amended) A transmission imager according to claim 1, wherein the radiation source is specifically arranged in relation to the two, first and second, radiation detectors so that ~~its~~ a maximum output axis runs along the first one of two reference axes extending from the first radiation detector or between the first reference axis and the other or second reference axis extending from the second radiation detector.
3. (Previously presented) A transmission imager according to claim 1, wherein the second radiation detector is a flat panel detector.
4. (Previously presented) A transmission imager according to claim 1, wherein the first radiation detector is an image intensifier.
5. (Previously presented) A transmission imager according to claim 2, wherein the second radiation detector is a flat panel detector.
6. (Previously presented) A transmission imager according to claim 2, wherein the first radiation detector is an image intensifier.
7. (Previously presented) A transmission imager according to claim 3, wherein the first radiation detector is an image intensifier.
8. (Previously presented) A transmission imager according to claim 4, wherein the first radiation detector is an image intensifier.

9. (Previously presented) A transmission imager according to claim 5, wherein the first radiation detector is an image intensifier.